Secular Trend, and Effect of Birth Order, Maternal Age and Gestational Age in Stillbirth Rate of Twins.

There were two sources of data available for the present analysis. The first source consists in the annual volumes of “Vital Statistics of Japan for the Years 1951-1968 and 1974.” The second source of data consists in the “Survey on Socio-Economic Aspects of Vital Events-Plural Births in 1975” (Health and Welfare Statistics and Information Department). This consists of two surveys, A and B. In the survey A, on 25,192 children or fetuses born in plural deliveries to mothers of Japanese nationality, data were obtained from certificate records on the live birth and fetal death for all of Japan in 1974. Survey B was conducted on a part of children included in survey A, and was not availed in the present analysis.

Stillbirth rates of MZ and DZ twins in Japan are gradually decreased with the years during the period from 1960 to 1967 and in 1974. The stillbirth rates of MZ and DZ twins were 0.270 and 0.224 in 1960, respectively, whereas the corresponding figures in 1974 were 0.135 and 0.099. The stillbirth rate was higher in MZ than DZ twins and in males than females. Higher stillbirth rate of twins was seen in the second born than in the first born. The shorter the gestational age the higher the stillbirth rate in both MZ and DZ twins, as expected. Mean gestational age was slightly shorter in MZ twins than in DZ twins. The decrease of the stillbirth rates can be explained partly by the reduction of twins with higher birth order, where high stillbirth rates of MZ and DZ twins are seen, and the reduction of older mothers.